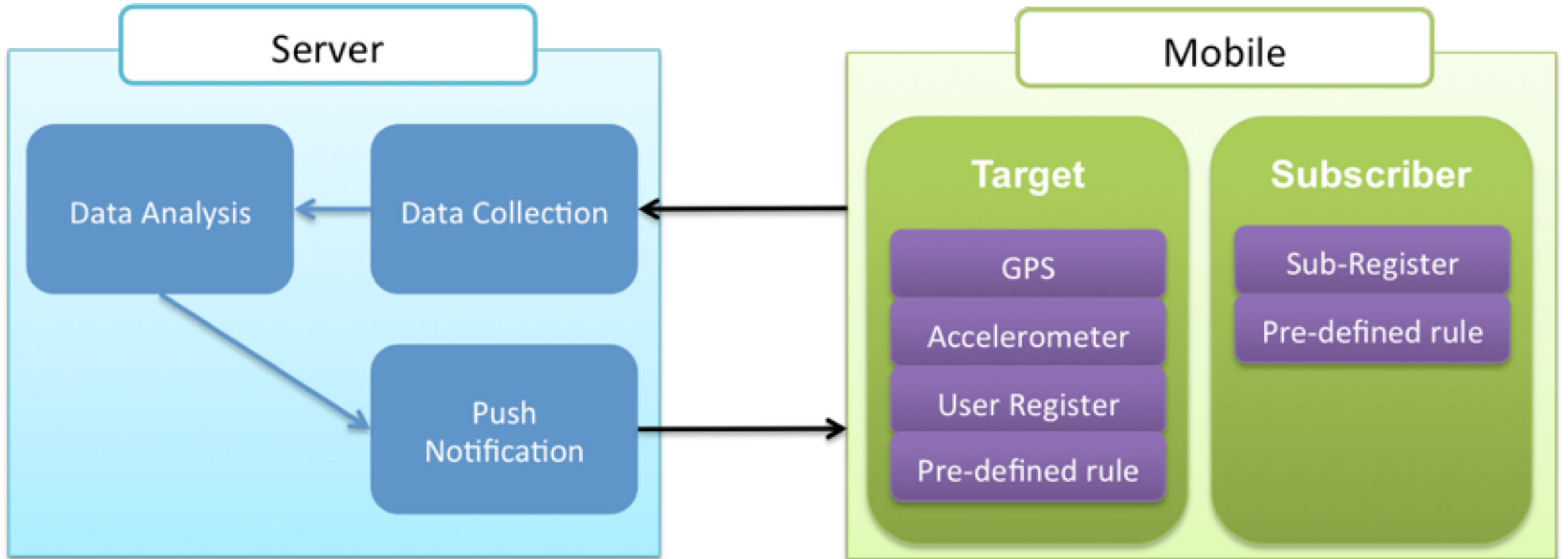# Home Health
Real-time Risky Situation Detection for Surveillance Elderly

JONGHAK KIM, DA HUO, HYUNGIK OH

ADVANCED NETWORK & MIDDLEWARE

Goal

- Risky Situation Detection at Home

- Real-time

- Alert to related people - Subscriber

- What is Risky Situation?

Architecture

How to Detect – Front-end

Target Person

- **Mobile**

  - Insert ID

  - Data Collection (Mobile Sensors)

  - Http Request (POST)

  - Push Message (Q: Are you ok?)

Subscriber

- **Mobile**

  - Insert ID

  - Register Target ID

  - Pre-defined Rules

  - Push Message (Alert)
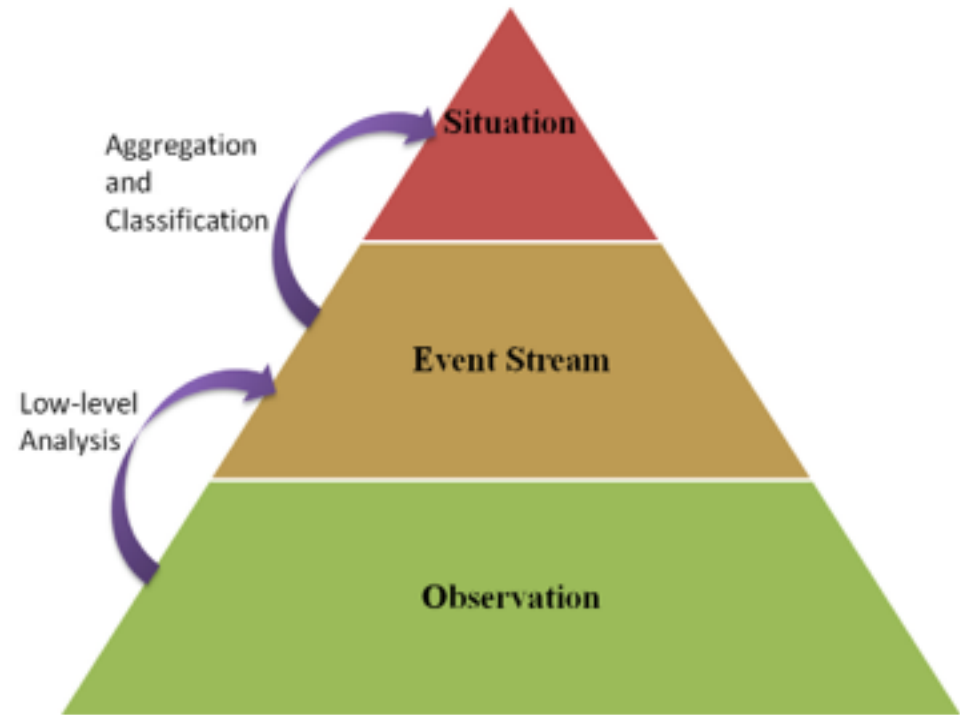
How to Detect – Back-end

Data Collection
- Data Type: GCC GPS
- Predefined rules
- HTTP request
- NodeJs based framework
- MongoDB database

How to Detect – Back-end

Activity-Level Recognition

- 1 min window length
- Classification (Naïve Beyes)
- Classified 4 Activity-Level
  - Very high
  - high
  - Low
  - Very low

How to Detect – Back-end

Instant Notification

- Google Cloud Messaging Platform
- Send subscriber notification

Thank You

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